

Nanopublication — Computational Image Analysis - AQC0463

by Arnaud Quercy · Alaska · 2023

Claim 1: Computational Image Analysis - AQC0463

Computational image analysis [3] of artwork Alaska [1] (AQC0463) [2] by Arnaud Quercy [2] using k-means clustering method with 10 color extraction parameters. Analysis includes color distribution, texture metrics, brightness/contrast measurements, and spatial pattern characterization. Analysis completed on 2026-02-04.

CONTEXT

Analysis performed according to MMIDS-CMP-2025 [3] includes four metric categories: (1) Color distribution via k-means (10 colors), (2) Texture analysis using Haralick features, (3) Brightness and contrast measurements, (4) Spatial pattern characterization. Source image [5]: 526x701 pixels. Analysis date: 2026-02-04.

COLOR ANALYSIS

Rank	Color Hex	%	Family	Name
1	B3BACB	21.6	blue-violet	silver
2	A1A9B7	18.7	blue-violet	steel gray
3	8B95A3	15.3	blue-violet	lightslategray
4	6C8190	12.5	blue	grayish purple
5	4F6A78	10.0	blue	dimgray
6	929D80	5.9	yellow-green	gray
7	7B8756	5.5	yellow-green	dimgray
8	244B64	4.9	blue-violet	grayish purple
9	616F30	3.6	yellow-green	dark brown
10	142B26	2.0	green	very dark gray
11	46331F	0.3	orange	dark brown [Accent]
12	433E28	0.3	yellow	darkslategray [Accent]

Color Families:

Family	%
blue-violet	60.5
blue	22.5
yellow-green	15.0
green	2.0
orange	0.3
yellow	0.3

Accent Colors:

Hex	Family Name	Chroma	
46331F	orange	dark brown	17.1
433E28	yellow	darkslategray	15.1

TEXTURE ANALYSIS

Metric	Value
Global Roughness	0.148
Mean Local Roughness	0.029
Roughness Uniformity	0.021
Edge Density	0.149
Mean Gradient Magnitude	0.197
Gradient Variance	0.045
Gradient Smoothness	0.0
Directional Coherence	0.014
Pattern Complexity	0.127
Pattern Repetition	1.0
Detail Frequency Ratio	0.632
Spatial Variation	0.08
Texture Consistency	0.655

BRIGHTNESS & CONTRAST ANALYSIS

Metric	Value
Mean Brightness	0.563
Brightness Variance	0.148
Brightness Uniformity	0.737
Brightness Skewness	-0.813
Brightness Entropy	7.07
Rms Contrast	0.148
Michelson Contrast	1.0
Weber Contrast	0.505
Mean Local Contrast	0.027
Contrast Uniformity	0.328
Dynamic Range	0.898
Effective Dynamic Range	0.463
Shadow Percentage	7.638
Midtone Percentage	61.147
Highlight Percentage	31.215
Shadow Clipping	0.001
Highlight Clipping	0.0
Tonal Balance	0.0
Fine Contrast	0.019
Medium Contrast	0.034
Coarse Contrast	0.045
Multiscale Contrast Ratio	0.428
Edge Contrast	0.197
Contrast Clustering	0.345

SPATIAL DISTRIBUTION ANALYSIS

Metric	Value
Spatial Coherence	0.709
Color Clustering	0.732

Metric	Value
Color Transition Smoothness	0.491
Transition Uniformity	0.698
Sharp Transition Ratio	0.1
Transition Directionality	0.013
Mean Saturation	0.231
Saturation Variance	0.033
Low Saturation Ratio	0.758
Medium Saturation Ratio	0.205
High Saturation Ratio	0.037
Saturation Clustering	0.999
Hue Concentration	0.543
Complementary Balance	0.02
Analogous Dominance	0.692
Temperature Bias	-0.681

Methodology

This analysis employs standardized computational methods for objective image characterization. Color extraction uses k-means clustering algorithm. Texture analysis applies Haralick feature extraction. Brightness metrics include mean, variance, and distribution analysis. Spatial patterns are characterized through coherence and clustering measurements. All methods are deterministic and reproducible. Analysis performed by Multimodal Institute's computational imaging systems.

REFERENCES

- [1] Arnaud Quercy (2023). Alaska — Catalog raisonné. <https://arnaudquercy.art/en/catalogue-raisonne/AQC0463.html>
- [2] Quercy, A. (2025). Untitled - Gallery. https://artquamanima.com/en/artworks/2023/01/alaska_58a.html
- [3] Quercy, A. (2025). Computational Image Analysis Standard - MMIDS-CMP-2025 h <https://multimodal.institute/en/publications/2025/11/mmids-cmp-2025-computational-image-analysis-standard-dg1.html>

EPISTEMIC PROFILE

Claim type computational analysis

Voice third person

Epistemic status empirical measurement

Methodology computational analysis

Certainty high

CHECKSUM (SHA-256)

4a250b4409244e8eb86cc47db6eced1a0cb2a47b270da15b4d593d7070d-b00ee

Artist Arnaud Quercy

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